



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/670,594

09/25/2003

Roy Lee Hayford

60130-1407; 02MRA0185

7491

26096

7590

04/21/2006

CARLSON, GASKEY & OLDS, P.C.
400 WEST MAPLE ROAD
SUITE 350
BIRMINGHAM, MI 48009

EXAMINER

BURCH, MELODY M

ART UNIT

PAPER NUMBER

3683

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/670,594	Applicant(s) HAYFORD ET AL.	
	Examiner Melody M. Burch	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17 and 19 is/are allowed.
- 6) ☒ Claim(s) 18 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the actuator rod having an end disposed within the aperture of the actuator and the limitation of an elongated slot must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Examiner notes that in the remarks filed 2/13/06 Applicant explains that figures 1B and 2 illustrate different embodiments. In light of the explanation, Examiner now recognizes that aperture 52 through which an end of actuator rod 28 is disposed is shown in the embodiment of figure 1B. The embodiment that includes the slot 62 and pin 64, however, is shown in figure 2. Figures 2, 5A, and 5B show a cross-shaped pattern on the top surface of actuator 46 and two radially extending holes intersecting to form a cross below the top surface of element 46. Given the illustrated arrangement in figure 2 it is unclear how the rod 28 is captured in the actuator 46 as described in paragraph [33], and it is unclear how the actuator rod end 50 is disposed with the aperture of the actuator as recited in claims 10 and 18. Clarification is required.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

Art Unit: 3683

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The originally filed specification lacks proper antecedent basis for the phrase "pawl assembly coacting with said actuator for retaining said actuator in a rotational position relative to said axis" as recited in claim 1. The

specification states in paragraph [35] that "the pawl assembly 68 cooperates with an elongated slot 70 to rotationally locate the actuator 46 relative to the housing 23." The specification also states in paragraph [36] that the "pawl assembly 68 is retracted to disengage the pawl from the actuator 46 to permit rotation of the worm gear 36."

Neither of the phrases supports the idea of pawl coacting with the actuator for retaining the actuator in a rotational position. Examiner recommends using language similar to that used in claim 14.

4. The disclosure is objected to because of the following informalities: In light of Applicant's remarks regarding the differences set forth in figures 1B and 2, Applicant should amend the brief description of drawings to clearly indicate different embodiments to avoid any possible confusion.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4256208 to Najer et al.

Re: claims 18 and 20. Najer et al. show in figure 2 a brake slack adjuster

Art Unit: 3683

comprising: a housing 34 having an opening 36 with a gear 38 disposed within the opening, the housing including a bore 42 adjacent to the opening, a worm 44 defining an axis disposed within the bore, the worm engaging the gear, an actuator 72 movable between nonadjustment and adjustment positions, the actuator having an aperture shown at the top surface, an actuator rod 76, 200 having an end shown in the area of element 84 disposed (radially) within the (boundaries of the) aperture, the end including a slot 202 shown in figure 4 that is elongated in a direction generally parallel with the axis and defining the non-adjustment and adjustment positions, and a pin 84 slidably disposed within the slot and movable within the slot in the direction between the nonadjustment and adjustment positions, the pin secured to the actuator via intervening elements.

Allowable Subject Matter

7. Claims 1-17 and 19 are allowed. Lavelly shows the complementary engaging means between the outside of the end of the worm and the inside of the actuator including complementary engaging splines. The independent claims require that the complementary engaging means comprise helical teeth. It would not have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the complementary engaging splines to include complementary engaging helical teeth since it would destroy the arrangement in which relative rotation between the end of the worm and the actuator of Lavelly is prevented.

Response to Arguments

8. Applicant's arguments with respect to claims 18 and 20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3683

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mmb
April 19, 2006

Melody M. Burch
Melody M. Burch
Primary Examiner
Art Unit 3683
4/19/06